



## The North Carolina Autism and Developmental Disabilities Monitoring Network

NC-ADDM is part of a national effort to estimate the number of children with autism spectrum disorders (ASD) and intellectual disabilities (ID) funded by the Centers for Disease Control and Prevention (CDC). Our goal is to provide the most accurate data possible on the prevalence of these disorders in order to inform programmatic and fiscal planning to support the education and health of children with these disabilities. These data also allow us to investigate factors associated with variability in prevalence, monitor prevalence trends over time, and investigate concerns that ASD prevalence is increasing.

The March 30, 2012 CDC Morbidity and Mortality Weekly Report (MMWR) releases the most recent prevalence estimates for the 14 states contributing to ADDM across the United States. Below, additional highlights from North Carolina are provided to allow comparison to national data and provide additional details for individuals and agencies in NC. The data in this report reflect children who were 8 years old in 2008 (born in 2000) in central North Carolina.

### NC Highlights on the Prevalence of Autism Spectrum Disorders (ASD)

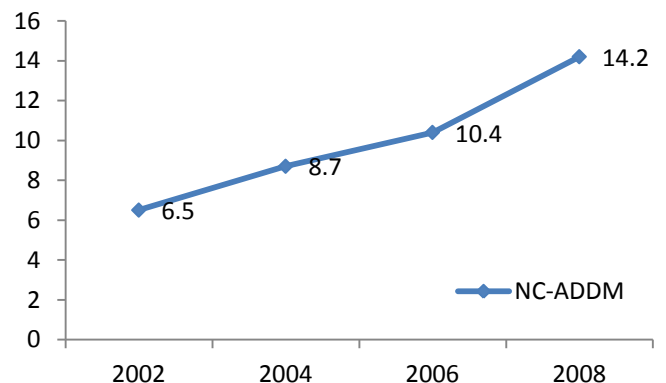
Central NC	All 8 year olds in region No. (% of total)	ASD Prevalence per 1000
<b>All 8 year olds</b>	36,913	14.2
<b>By Race-Ethnicity</b>		
White	21,038 (57%)	14.6
Black	9,414 (26%)	15.4
Hispanic	4,977 (13%)	7.6
Asian-Pacific Islander	1,353 (4%)	11.8
<b>Boys</b>	18778 (51%)	23.1
<b>Girls</b>	18135 (49%)	5.1

- In central NC, 525 children were identified with ASD (Autistic Disorder, Asperger Disorder, or Pervasive Developmental Disorder not otherwise specified) from among 36,913\* children 8 years of age. (\*US census).
- The 2008 prevalence of ASD among children born in 2000 in central NC is 14.3 per 1000 children, or
  - 1 in 70 children
  - 1 in 43 boys & 1 in 196 girls
- NC prevalence is slightly higher, but generally similar to the estimate of for children across all 14 sites conducting surveillance under the standardized CDC protocol.

- The number of children identified with ASD in central NC and across other sites in the US has increased since surveillance began in 2002.
- In contrast to previous surveillance years, the rate among black children has caught up and is now similar to the rate among white children. The rate among Hispanic children still remains lower.

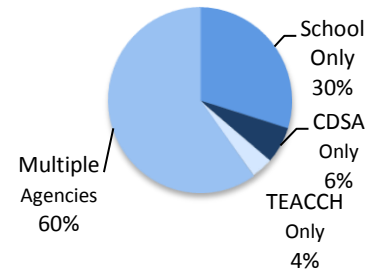


### Prevalence per 1000 Children Age 8 years



## Overview of Surveillance Method

Surveillance is conducted through collaboration with our partnering agencies. Information is combined across agencies to create a non-duplicated composite for each child. Expert clinicians review de-identified data to determine whether the standardized criteria for ASD has been met. This model is similar in other sites across the US, providing a comprehensive estimate of ASD prevalence.



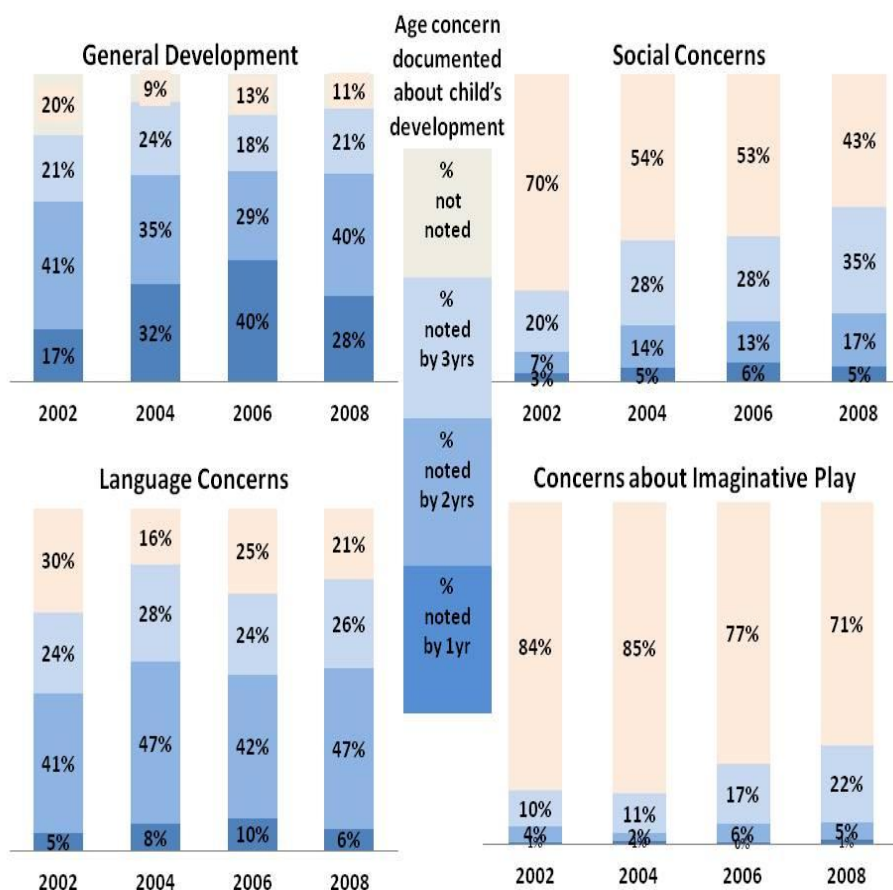
## NC-ADDM's Partnering Agencies

In NC, ADDM relies on successful collaboration between the University of North Carolina at Chapel Hill, The Department of Public Instruction, Division TEACCH, Children's Developmental Service Agencies (CDSA), Early Intervention Branch, Women's & Children's Health Section, Division of Public Health, NC Department of Health and Human Services.

## How children in NC are identified and served:

- Most children (66%) with ASD in NC had a prior diagnosis or suspicion of ASD noted.
- Most children (86%) identified with ASD by NC-ADDM were receiving special education services.
  - Among those receiving special education in school, 72% were receiving services specifically for ASD.
- Because most children are served by more than one agency and under multiple classifications, prevalence estimates for ASD from any single agency considerably underestimates the prevalence of ASD in North Carolina.

## Recognition of ASD characteristics among NC children with ASD



### Early signs of ASD

- General development & language are often the first signs noted, but the age at which these signs are first documented varies.
- In recent years, documentation of social and imaginative play concerns has become more common, but is usually after age 2.

### The earliest age children are evaluated

- Median age at first developmental evaluation was 38 months (range 1 to 101)
- Median age ASD was first documented on record: 3 years 10 months

### Age at diagnosis varies by severity

- Autistic Disorder: 3 yrs, 3 mos
- ASD/PDD: 4 yrs, 7 mos
- Asperger's Disorder: 6 yrs, 7 mos

### Intellectual Function among children with ID in NC is:

- 4% Above average IQ (>115)
- 34% Average IQ (86-115)
- 24% Borderline IQ (71-85)
- 38% Intellectual Disability ( $\leq 70$ )
- 50% of girls and 33% of boys had ASD & ID